Paper No. 29

UNITED STATES PATENT AND TRADEMARK OFFICE

_____

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

_____

Ex parte MATTHEW B. HOYT, BOBBY J. BAILEY,
STANLEY A. MCINTOSH,
PHILLIP E. WILSON and GARY W. SHORE

_____

Appeal No. 2003-0580
Application No. 09/139,081

_____

HEARD: October 8, 2003

_____

Before PAK, OWENS, and LIEBERMAN, *Administrative Patent Judges*

OWENS, *Administrative Patent Judge*.

DECISION ON APPEAL

This appeal is from a nonfinal rejection of claims 41-52, which are all of the claims pending in the application.[1]

THE INVENTION

The appellants claim a carpet comprising acid-dyed sheath/core nylon fibers which are resistant to ozone fading.

[1] In an appeal in which claims have been at least twice rejected, the board has jurisdiction as discussed in *Ex parte Lemoine*, 46 USPQ2d 1432 (Bd. Pat. App. & Int. 1995).

Claim 41 is illustrative:

> 41. An ozone fade resistant dyed carpet comprising:
>
> a backing material; and
>
> dyed sheath/core face fibers affixed to said backing material and bound thereto, said face fibers having (i) at least about 70 wt.% of a core formed of at least one fiber-forming core nylon selected from the group consisting of nylon-6, nylon 6,6 and copolymers and blends thereof, and (ii) a sheath substantially or completely covering said core formed of a fiber-forming sheath nylon selected from nylon 6,12 and copolymers thereof which exhibit inherent chemical compatibility with the core nylon and which is acid dye resistant, wherein
>
> said dyed sheath/core face fibers are dyed with an acid dye and have a resistance to ozone fading indicated by a CIE L*a*b* total color difference from the original unexposed dyed sheath/core face fibers after at least 3 cycles of ozone fading that is less than one-half of the CIE L*a*b* total color difference seen for a fiber composed substantially completely of said core nylon that is dyed with the same acid dye.

THE REFERENCES

Ida et al. (Ida '901)	3,918,901	Nov. 11, 1975
Ida et al. (Ida '973)	3,927,973	Dec. 23, 1975
Chambers et al. (Chambers)	4,762,524	Aug. 09, 1988
Jenkins	5,085,667	Feb. 04, 1992
Lin	5,447,794	Sep. 05, 1995 (filed Sep. 07, 1994)

THE REJECTION

Claims 41-52 stand rejected under 35 U.S.C. § 103 as being unpatentable over Lin in view of Jenkins, Chambers, Ida '973 and Ida '901.

OPINION

We affirm the aforementioned rejection.

The appellants state that the claims stand or fall together (brief,[2] page 4). We therefore limit our discussion to one claim, i.e., claim 41. *See In re Ochiai*, 71 F.3d 1565, 1566 n.2, 37 USPQ2d 1127, 1129 n.2 (Fed. Cir. 1995); 37 CFR § 1.192(c)(7)(1997).

Lin discloses textile articles, especially carpets, comprising polyamide sheath-core filaments wherein the sheath is comprised of a polyamide which is resistant to staining by acid dyes (col. 1, lines 7-11). An exemplified filament has a nylon 66 core and a nylon 6,12 sheath, the sheath to core ratio being 1:9 (col. 5, lines 6-8 and 27). Pigments can be incorporated into the sheath and/or core polymer (col. 3, lines 20-24). Lin does not disclose dyeing the filaments.

[2] Citations herein are to the supplemental brief filed July 16, 2002 (paper no. 21).

Jenkins discloses a method for "improving the stain resistance, lightfastness and ozone resistance of nylon, especially nylon carpet" (col. 1, lines 11-13). Jenkins teaches that "[c]ationic dyeable nylons contain SO_3H groups or COOH groups within the polymer structure in an amount sufficient to render the nylon fiber dyeable with a cationic dye which groups are receptive to cationic or basic dyes" (col. 1, lines 24-28) and that "[c]ationic dyeable nylons generally exhibit inherent stain resistant properties, especially to acid-type stains" (col. 1, lines 34 and 51-52). Jenkins dyes cationic dyeable nylon fibers with acid dyes or premetalized acid dyes at a pH of about 4.0 to 6.5, fixes the dyes to the fibers, and produces, from the fibers, carpet having improved stain and ozone resistance and lightfastness properties (col. 1, lines 11-13 and 62-65; col. 12, lines 7-10). Two of Jenkins' dyes (Acid Blue 277 and Acid Red 361, col. 6, lines 14 and 18) are among the appellants' acid dyes (specification, page 16, lines 4-5).

Jenkins does not disclose that nylon 6,12 is cationic dyeable. However, Jenkins teaches that "[a]n affinity for cationic dyes is usually imparted by the incorporation of a

monomer containing sulfonic acid groups. Thus one such modification of a polyamide fiber is obtained by adding a certain amount of sulphoisophthalic acid prior to polymerization" (col. 2, lines 50-54).[3] Jenkins, therefore, would have fairly suggested, to one of ordinary skill in the art, incorporating a monomer containing sulfonic acid groups into Lin's nylon 6,12 sheath polymer to render the nylon 6,12 cationic dyeable, and dyeing the nylon 6,12 sheath with one of Jenkins' acid dyes such as Acid Blue 277 or Acid Red 361, to produce a dyed sheath having the desirable properties disclosed by Jenkins, i.e., improved stain resistance and fastness properties.[4] Consequently, the appellants' claimed carpet would have been prima facie obvious to one of ordinary skill in the art.

The appellants argue that "reviewing Jenkins would lead one of ordinary skill in this art to expect that fibers formed entirely of the therein disclosed polymeric materials would be necessary in order to achieve the properties of lightfastness and depth of shade" (brief, page 7). This argument is not well taken

[3] The appellants' sheath polymer may a sulfonated polyamide (specification, page 10, lines 11-12).

[4] There is no dispute as to whether the dyed fibers would have the ozone fading resistance recited in the appellants' claim 41.

because Jenkins' disclosure pertains to acid dyeing nylons in general which have been rendered cationic dyeable. The disclosure is not limited to the exemplified nylons. *See In re Fracalossi*, 681 F.2d 792, 794 n.1, 215 USPQ 569, 570 n.1 (CCPA 1982); *In re Mills*, 470 F.2d 649, 651, 176 USPQ 196, 198 (CCPA 1972).

The appellants argue that because Lin teaches that his sheath is resistant to staining by acid dyes, one of ordinary skill in the art would not have expected the sheath to be stainable by Jenkins' acid dyes (brief, page 8). The acid dyes to which Lin's sheath is stain resistant are not the types of dyes used to dye carpet fibers but, rather, are the acid dyes in Kool-Aid® (col. 3, line 36). Jenkins' cationic dyeable nylons also are resistant to Kool-Aid® stains (col. 7, lines 36-37). Hence, Jenkins would have indicated to one of ordinary skill in the art that Lin's sheath is dyeable with Jenkins' acid dyes to produce a dyed sheath which is resistant to Kool-Aid® stains.

The appellants argue that Lin's disclosure that the fibers can be pigmented teaches away from dyeing the fibers (brief, page 8). Lin merely teaches that pigments are an optional

additive to the core and/or sheath polymers (col. 3, lines 20-24). This disclosure in no way indicates that the polymers are not acid dyeable.

The appellants argue that the Wilson declaration (filed September 24, 2001, paper no. 15) shows that the claimed invention satisfies a long felt but unsolved need for the most desired characteristics of a carpet fiber (brief, pages 9-12). For the following reasons, this declaration is not effective for overcoming the prima facie case of obviousness of the appellants' claimed invention.

First, Wilson does not show that there was a particular long felt need but, rather, merely indicates that the attendees at town hall meetings would like better carpet fibers. Wilson states that BASF's town hall meetings resulted in "a list of long felt, but at that time unresolved, industry needs for the most desired characteristics of the ultimate carpet fiber. These needs included stain resistance, dyeability to provide color flexibility at the mill and improved ozone fastness, among other things" (page 2).

Second, Wilson does not establish, such as by providing evidence from carpet users, that the claimed invention solves any need. Wilson merely submits articles by trade journal publishers who are in a position to receive advertising revenue from companies whose products they discuss and who, therefore, cannot reasonably be considered impartial. Not surprisingly, the articles praise the products made by BASF (the appellants' assignee) and every other company mentioned in the articles. Moreover, the articles clearly do not establish that the appellants have solved the need for stain resistant, ozone fade resistant carpet fibers such that no further improvement in carpet fiber stain resistance and ozone fastness is needed.

Third, Wilson does not establish that the stain resistance and ozone fastness which the articles attribute to the Savant™ fibers are due to the characteristics set forth in the appellants' claims.

For the above reasons we conclude that a prima facie case of obviousness of the appellants' claimed invention has been established and has not been effectively rebutted by the appellants.[5]

[5] A discussion of Chambers, Ida '973 and Ida '901 is not necessary to our decision.

DECISION

The rejection of claims 41-52 under 35 U.S.C. § 103 over Lin in view of Jenkins, Chambers, Ida '973 and Ida '901 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

CHUNG K. PAK Administrative Patent Judge	)	
TERRY J. OWENS Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
PAUL LIEBERMAN Administrative Patent Judge	)	

tjo/vsh

Nixon & Vanderhye P.C.
1100 North Glebe Road
8th Floor
Arlington, VA 22201-4714